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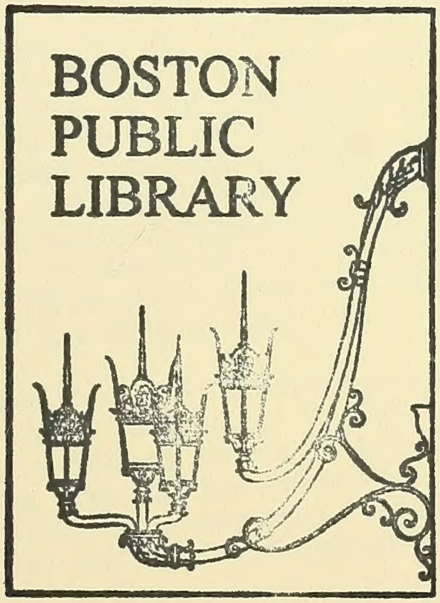

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CARL KOCH MARK J WALTCH
Boston Redevelopment Authority Contract
for 221 D 3 Relocation Housing
for Release January 30, 1963

We have been given a clear program by the Boston Redevelopment Authority. It is to produce houses at the lowest possible rents which can also be a source of pride and satisfaction to the people who buy or rent them and the City of Boston. We were chosen as architects, I believe, because better houses at lower cost has been one of our principal concerns for many years. Mr. Waltch was chosen because of his demonstrated capacity as a responsible executive in a national building corporation with broad experience in financing, organizing and building economical large scale housing projects. I would like to touch for a minute or two on our architectural philosophy because I think it will help explain more clearly our solution that I will then describe to you.

Industrialization is the main reason for the high material standard which America as a whole enjoys. There are very few aspects of our society which have not been transformed by it. These pictures (1-2), however, illustrate an area which seems to have been left out. This is a part of Boston in 1963. Mass production and standardization, which has produced the remarkable wealth which our country as a whole enjoys, has so far not been applied to housing a very large segment of our population that most needs it. Given a perfectly valid set of functional and aesthetic criteria, a house can be built in as intelligent a way as an automobile engine. It is certainly no more complex a problem, and on the whole the materials are subject to less restrictions. An automobile engine (3) built as the average house is built would cost at least $10,000. That engine does cost as little as $200 to produce. We are all aware that it is an incredibly complex assembly of machined parts, much more like a precision watch than a house. However, the components of this potentially expensive assemblage are standardized to enable a production large enough to justify the use of men, tools, dies,

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machines, and processes which drastically reduce at every stage the time required for the men involved to convert raw material to machined part. The 30 cents a pound this engine costs is little more than the price we pay for the very crude but semicustom-made steel frame after the simple operations necessary to complete its preparation for final use in a building today.

But designers and their customers generally dislike what they understand standardization to be in the house. This misunderstanding and the failure to design to intelligently use this tremendous mechanical aid has been expensive and has kept us from getting good houses at reasonable cost. We need only to realize that (4) 26 letters in the alphabet are plenty to give us as rich a literature and communication system as the world has ever known. We haven't begun to exhaust the possibilities that (5) 9 numbers and a "0" give us. The 13 tones in our musical scale, for all the (6) discipline they impose, have almost limitless possibilities for building beautiful structures in music. This approach is possible in architecture. It has, on occasion, given us, and will again give us, outstanding beauty with the tremendous value for our money that we get elsewhere in our life. The Royal Crescent at Bath is a famous example of standardization and repetition which no one accuses of monotony. The beautiful Greek island towns built of one standard material, construction method, and color are perhaps the most exciting and visually satisfying houses in the world.

This is the reasoning behind our approach to designing for the BRA in Boston. Good architecture right here in Boston of which we are most proud has followed these principles long before we had to face the kind of economical necessities now required. (10) Louisburg Square and the South End are (11) beautiful because they use repetition as has all good architecture to produce a unified whole larger than any of its parts. We

are completely convinced that the kind of standardization which will produce the kind of value and capability we get in an automobile engine can also give us the best housing for the money this country has seen right here at Notre Dame. Our office has been working in this direction for 20 years. As early as 1939 I learned I could reduce the cost of a group of a half dozen houses in Snake Hill, Belmont, at least 15% by using the same details and materials in the design of all 6 quite different houses. We used the same principles in the design of 100 houses in Concord 12 years ago. The Techbuilt house which grew (12) out of the Concord house experience has spread this principle to more than half (13) of the states in the Union (14). We have worked for the (15) last 5 years for several steel companies, an aluminum (16) company, and 2 plastics companies to study the application of mass production principles and industrialized materials to low-cost, high-quality housing components. This new Armco (17) steel Techbuilt house and the steel, concrete (18), and brick Armco apartments (19-20) are the most recent results in the application by our office of these principles, combining beauty, low maintenance, and low cost. We have designed 3 221 D3 projects in New Haven (21-22-23), two of which have been built and fully rented at figures equaling the goals set by BRA for its program. The third, Liberty Square, is being constructed now.

There are 2 additional important considerations for the work we are performing for BRA which have influenced our decisions. Our program calls for the creation of a high-density urban-housing neighborhood. Notre Dame is in the city of Boston, is in a densely populated area, a real urban neighborhood (24). Where more than 25 families are to live together on an acre of land, two factors become real determinants--noncombustible construction and real acoustic privacy. For this reason and because

as a basic construction material, there is nothing longer lasting nor more inexpensive, we chose concrete. We are not the first to have made this decision as the next 5 slides show. Both in Europe and America concrete, engineered for standardization, is proving itself a practical and handsome material. The next decision, after the selection of concrete as a material, was to use standardization only where it brought real economy and still permitted the kind of flexibility necessary to give different kinds and sizes of families what they need and want, to fit different ground conditions, and local preferences. We started with the most expensive part of the house (25-26-27), the mechanical core, designed it so that with the same basic kitchen, bath room, heating unit, and ventilation equipment (28-29), different size families, different numbers of stories could all be accommodated by a multiplication of the same component parts. This same approach applied to stairways (30-31)—all parts of the building, in fact, where the vertical circulation of human beings and mechanical equipment takes place which we grouped together for maximum efficiency.

We then determined on a structural system enclosing and related to this core of the largest size where complete standardization could be effected. We ended up with bearing walls, spaced 32' apart and 32' in width, a concrete floor slab, spanning between these bearing walls, expandable in multiples of 4' or 40" to provide every necessary family unit size from an efficiency apartment to a 5-bedroom unit. Where further variation is required, and it isn't at Notre Dame, the dimension in the other direction can be decreased to as little as 28' or expanded on up to 40' or more. The exterior, nonbearing walls of the building are free to be surfaced with brick, stucco, steel, aluminum or other noncombustible, low-cost, low-maintenance panels. This decision also permits for a number of different exterior aspects to a community of houses. Windows, doors, and the proportion of glass to solid panel within this build-

ing module can be varied to suit the particular site conditions, lighting and ventilation needs, orientation, or personal preference. These variations, because they occur within an over-all unified building system, add interest without impairing the over-all unity necessary in any good architecture. We have insisted in developing this building system on providing an opportunity for different manufactureres of building materials and methods to bid against each other so that only those producing the best value which fits the system will be selected. Now for the first time, we believe, other architects, as well as ourselves, will have the building blocks with which better communities at significantly lower cost can be built.

Lest this all sound to you too much like experimentation, I would like to make a short preface to what Mark Waitch will say.

In accordance with Mr. Logue's request we have, in addition to keeping in close touch with BRA staff, gone over our work (almost before we had done it!) with the FHA both here in Boston and in Washington, discussed it at length and received comments, criticism, and commendation from a number of architects, engineers, and several renewal administrators with 221 D3 experience. We have checked it even at this stage with the Boston Building Department as well. We are not proposing materials and methods which have not yet been used; they have been, and successfully. It is only the planning procedure and the use of these components in this combination and for low-cost housing which is new.

Here at Notre Dame we are providing for 202 families to live together in a neighborhood of which any one of us would, I believe, be proud to be a part. These 202 units consist of 23 1-bedroom, 40 2-bedroom, 80 3-bedroom, 47 4-bedroom, and 12 5-bedroom apartments. We are providing room for one car for each family in conveniently placed

off-street parking compounds. No one walks over 200' to his house, and the typical distance is about 25'. The houses are arranged generally in groups of 30 or so families with space for children, playground equipment, sandboxes, and a single large park area for older children and grownups to enjoy the lovely surroundings provided by Notre Dame. Our site plan is very much related to the magnificent planting existing there, and very few good trees will be lost, and fortunately very few will have to be added. Sixty-eight of the houses have their own private garden walled in to give them better privacy than is enjoyed in most suburban communities. Further, 6,000' of convenience shopping has been provided, ~~inside and~~ outside storage facilities of 3,500 s.f. for bicycles, garden tools, etc., and a location set aside for a nursery school and community space.

Mr. Waltch and myself and the people working so hard with us in our office and at the BRA and the rest of the people agree with me, I believe, that Academy Homes, if built in accordance with the designs I have shown you and the specifications that Mr. Waltch has costed, will be a source of tremendous pride to the people who occupy it and the envy of every other city in the country. Therefore, I hope the Board will approve our work to date and let us prove together that Boston can build as well for the future as she has in the past for her people who need it.